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**Generation, Expansion, and Differentiation of Human Induced Pluripotent Stem Cells (hiPSCs) Derived From the Umbilical Cords of Newborns.**

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**Public Summary:**

The umbilical cord is tissue that is normally discarded after the delivery of the infant, but it has been shown to be a rich source of stem cells from the cord blood, Wharton's jelly, and umbilical endothelial cells. Patient-specific human induced pluripotent stem cells (hiPSCs) reprogrammed from patient specific human umbilical vein endothelial cells in the neonatal intensive care unit (NICU) population (specifically, premature neonates) have not been shown in the literature. This unit describes a protocol for the generation and expansion of hiPSCs originating from umbilical cords collected from patients in the NICU.

**Scientific Abstract:**

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